

REMARKS

Claims 1-7, 10, 21-23, and 25-29 are pending in the application. Claims 13-20 have been canceled. New claims 26-29 have been added.

Claim Objections

Claims 4 and 7 have been objected to because of improper dependency.

Claim 1 has been amended to delete the “only a single LED” limitation such that claim 4, dependent on claim 1, is now compatible with claim 1.

Similarly, claim 6 has been amended to delete the “only a single LED” limitation such that claim 7, dependent on claim 6, is now compatible with claim 6.

The Examiner is respectfully requested to reconsider and withdraw this objection.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 1, 5, 6, 10, 22, and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukasawa et al. (U.S. Patent 6,638,780) in view of Chen (U.S. Patent 4,914,731) and Sommers (U.S. Patent Publication 2003/0180037). This rejection is respectfully traversed.

In the Office Action, the Examiner alleges that Fukasawa discloses “a single reflector (21) having a substantially rectangular shape in plan perpendicular to a light emitting direction of the LED light source, the reflector being formed independently from the reflecting surface and provided above the reflecting surface so as to surround only a single LED light source (12) and an opened rear thereof closed by the circuit board when mounted on the circuit board.”

Applicant submits, however, that in Fukasawa, as shown in FIGS. 3 and 4, an LED 12 is embedded inside a transparent layer 18 having a rectangular parallelepiped shape, and a reflector layer 21 is provided such that it surrounds the transparent layer 18.

Therefore, even assuming that the reflector layer 21 corresponds to the “single reflector” of the present invention, the reflector layer 21 would have four (4) flat surfaces (because the transparent layer 18 has four (4) flat vertical surfaces) and would not have “at least four curved reflecting surfaces,” as recited in claim 1. This feature of the present invention is disclosed at least in FIGS. 2 and 4 of the present application.

The Examiner relies on the Chen reference to merely show that it discloses a reflecting surface (53) formed on a circuit board that is to be surrounded by a reflector. Moreover, although Chen discloses a reflector (40), it merely has a plurality of circular holes (41) that consists only of a single continuous curved surface.

Further, the Examiner also relies on the Sommers reference to merely show that to use LEDs in cameras flash devices is known in the art. Moreover, Sommers discloses, in FIG. 4, a flash apparatus having a housing that includes a pair of opposing interior surfaces 30 and a pair of opposing side surfaces 36. However, although the pair of opposing interior surfaces 30 may arguably be curved, which Applicant does not admit, the pair of opposing side surfaces 36 are apparently flat.

In view of the foregoing, even assuming that Fukasawa, Chen, and Sommers can be combined, which Applicant does not admit, Fukasawa, Chen, and Sommers, taken singly or in combination fail to disclose or suggest “a single reflector . . . having at least four curved reflecting surfaces,” as recited in claim 1.

Claims 5 and 22, dependent on claim 1, are allowable at least for their dependency on claim 1.

Independent claims 6 and 23 are allowable at least for the similar reasons as stated in the foregoing with regard to claim 1.

Claim 10, dependent on claim 6, is allowable at least for its dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claim 2 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukasawa, Chen, and Sommers, and further in view of Koay et al. (U.S. Patent Publication 2002/0047130). This rejection is respectfully traversed.

Claim 2, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claims 3, 4, and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukasawa, Chen, and Sommers, and further in view of Kitano et al. (U.S. Patent Publication 2003/0216151). This rejection is respectfully traversed.

Claims 3 and 4, dependent on claim 1, are allowable at least for their dependency on claim 1.

Claim 7, dependent on claim 6, is allowable at least for its dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(d) Claims 21 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukasawa, Chen, and Sommers, and further in view of Wu (U.S. Patent 6,481,130). This rejection is respectfully traversed.

Claim 21, dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 25, dependent on claim 6, is allowable at least for its dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

New Claims

Claim 26, dependent on claim 1, is allowable at least for its dependency on claim 1.

Claim 27, dependent on claim 6, is allowable at least for its dependency on claim 6.

Claim 28, dependent on claim 23, is allowable at least for its dependency on claim 23.

Claim 29, indirectly dependent on claim 6, is allowable at least for its dependency on claim 6.

A favorable determination by the Examiner and allowance of these claims is earnestly solicited.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi, Reg. No. 40,417, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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